

***National Marine Fisheries Service's IFQ Advisory Panel Report
on the National Research Council Report
"Sharing the Fish: Toward A National Policy
on Individual Fishing Quotas"***

May 1999

The comments, views, opinions and statements presented herein are those of the individual NMFS Advisory Panel members, and are not necessarily those of the National Marine Fisheries Service or the National Oceanic and Atmospheric Administration.

Executive Summary

In the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, Congress requested that the National Research Council (NRC) undertake a review of Individual Fishing Quotas (IFQs), and submit a comprehensive final report with recommendations to implement a national policy with respect to IFQs. The Act also required that “The Secretary of Commerce shall ... establish two individual fishing quota review groups to assist in the preparation of the report...” Accordingly, the National Marine Fisheries Service (NMFS) formed two advisory panels to provide assistance to the NRC Study Committee. As part of their responsibilities, the advisory panels prepared a report on the NRC Study Committee’s report “Sharing the Fish: Toward a National Policy on Individual Fishing Quotas” to provide NMFS and others with an independent stakeholders’ critique of the NRC report. Because of the range of opinions and views held by the AP members regarding various aspects of IFQs and their implementation, it was agreed by the panel members that no attempt would be made to integrate or reconcile opposing views for any particular topic. NMFS IFQ Advisory Panel members provided comments on: the overall emphasis of the NRC report; specific recommendations; errors of fact or interpretation; errors of omission; and the overall description of IFQ programs as a tool for fisheries management. The report that follows is a summary of the comments provided by the NMFS IFQ Advisory Panel members.

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Introduction

In the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, Congress requested that the National Research Council (NRC) undertake a review of Individual Fishing Quotas (IFQs), and submit a comprehensive final report with recommendations to implement a national policy with respect to IFQs (see Appendix A for the specific study requirements). The Act also required that “The Secretary of Commerce shall, in consultation with the National Academy of Sciences, the Councils, the fishing industry, affected States, conservation organizations and other interested persons, establish two individual fishing quota review groups to assist in the preparation of the report, which shall represent: (A) Alaska, Hawaii, and the other Pacific coastal States; and (B) Atlantic coastal States and the Gulf of Mexico coastal States. The Secretary shall, to the extent practicable, achieve a balanced representation of viewpoints among the individuals on each review group... [SFA, Sec 108 (f)(K)(4)].[®] Accordingly, the National Marine Fisheries Service (NMFS) formed two advisory panels to provide assistance to the NRC Study Committee (NMFS advisory panel members are listed in Appendix B).

Advisory panel assistance was contributed exclusively by providing the NRC Study Committee with the individual views, opinions, and experiences of advisory panel members. This interchange of ideas took place at two public meetings of the NRC Committee and the advisory panels. Participants at these meetings generally agreed that they were stimulating and successful in providing significant amounts of background information to NRC Committee members. Due to NRC rules designed to maintain the objectivity of its committees, the advisory panels played no role in the actual deliberations of the NRC Committee or in the writing or pre-publication reviewing of the NRC report. The NRC Study Committee Report, “Sharing the Fish: Toward a National Policy on Individual Fishing Quotas”, was delivered to NMFS and to Congress in December, 1998.

As part of their responsibilities, the advisory panels agreed to prepare a “report on the report” to provide NMFS and others with panel members’ views on the NRC Report. Because of the range of views of advisory panel members it was agreed that there would be no attempt to arrive at a consensus, nor to provide numbers of how many advisory panel members supported one position, nor would names be associated with any specific comment. All advisory panel members received a full copy of the NRC report shortly after its official release date of December 18, 1998 and were given until January 21, 1999 to provide written comments according to the following categories:

1. General comments on the overall emphasis of the document
2. Specific comments on the recommendations
3. Comments on errors of fact or interpretation
4. Comments on errors of omission
5. Comments on the "textbook" description of IFQ programs as a general tool of fisheries management

Of the 28 members of the advisory panels, 8 responded with substantive written comments. The following is a summary of the comments received. In some cases, more than one individual made similar points and their comments have been combined. Comments are

organized along the general categories outlined above. No attempt has been made to integrate or reconcile opposing views within a given section, and separate points are delineated by bullets within each section.

1. General comments on the document

- Overall, the NRC Report does a good job of laying out the issues surrounding the use of IFQs as a fishery management tool. The report is comprehensive and constitutes a thorough discussion of the many facets of management, economic, and social impacts of individual fishing quotas. The premise stated in several places that each fishery, and perhaps each region of the nation, will require that IFQs be tailored to the circumstances that exist and the goals to be achieved is supportable. This individual found especially agreeable those recommendations dealing with getting rid of the moratorium, putting regional decisions back into the regions, allowing maximum flexibility in the design of ITQs to meet the specific characteristics of the fishery to which they will be applied, rejecting a two pie system with both harvesting and processing quota, considering the working fishers, and getting fisheries off welfare through cost recovery.

- The NRC Committee generally followed the charge to it stated in Appendix A, p. 247. Exceptions include: minimal treatment of a) the key issue of duration (on p. 247); and b) the individual transferable effort approach *vis a vis* IFQs. The duration issue necessitates more extensive and imaginative discussion. This issue can serve many purposes related to all aspects of ITQ structure, evaluation and termination.

- Most, if not all, negatives associated with IFQ programs are actually mentioned in the report. However, while the positive attributes are expounded on page after page, the negatives get considerably less attention.

2. Specific comments on the recommendations

(a) Transferability

- The conclusion on page 9¹ that “leasing of quota shares should generally be permitted, but, if necessary, with restrictions to avoid creation of an absentee owner class[@] is an oxymoron. IFQ holders are either on the boat or they are not--leasing means they are not, therefore they are absentee owners with all that implies over the long-term.

- There is still much to do to settle the issue of transferability. Perhaps it would be more appropriate to consider fishing rights as leases rather than IFQs.

(b) Processors

- The report appears to hold different standards for different stakeholders. This deficiency is evident by juxtaposing the NRC Committee’s recommendation concerning skippers and crew to that of processors. The NRC Committee recommended that “...regional councils

¹ All page number references are for the pre-publication copy of the NRC report.

should (emphasis added) consider including hired skippers and crew in the initial allocation of IFQs (p. 199), even though there is no formal analysis in the report supporting this recommendation. In contrast, the NRC Committee "... found no compelling reason to recommend the inclusion or exclusion of processors from eligibility to receive initial quota shares. Nor did the NRC Committee find a compelling reason to establish a separate, complementary, processor quota system (the two-pie system) (p.199)." The report further states "**If avoiding processor losses is considered an appropriate social goal** (emphasis added), this could be accomplished by allocating separate harvester and processor quotas, which is equivalent to splitting the harvest quota share between harvesters and processors (p.199)." Avoiding processor losses **is** an appropriate social goal according to the Congressional charge to the NRC Committee, which was to analyze "...mechanisms to ensure that...United States fish processors are treated fairly and equitably in initial allocations...(104-297, sec. 108(f), Magnuson-Stevens Act ' 303 note)." The NRC Committee's recommendation does not "ensure" equitable treatment of processors, per its charge.

The NRC Committee's conclusion that a processor's decision not to integrate harvesting capacity within the firm could be taken as a decision to forgo the benefits of quota allocation, since such allocations have so far been made only to harvesters (p.151) is puzzling. Industrial organization is a consequence of a variety of institutional factors, not the least of which are foreign ownership restrictions of the Shipping Act of 1916 noted in the NRC Committee report on p. 152. The NRC Committee suggestion that the potential of IFQs should have motivated firms to vertically integrate also runs contrary to efficiency objectives of National Standard 5 whenever non-integration is more efficient. Furthermore, the NRC Committee referred earlier (p. 33) to the "independent, individualist way of life" as "valued attributes of fisheries." Why would it now suggest speculative vertical integration is a desirable, even necessary way, to avoid policy-induced wealth expropriation that the report doesn't even acknowledge as a real problem? And why would the NRC Committee suggest that those firms which did not or could not vertically integrate, for whatever reason, **should not** receive quotas and **deserve** to forgo the benefits of a change in fisheries policy?

The NRC Committee's point that processors might not require compensation in the form of quota allocation because the processing capacity already been written off as depreciation (p. 152) is misleading. Depreciation is an IRS tax accounting provision that is of no basis whatsoever in measuring "economic value/wealth" that quotas seek to protect/compensate. A fully depreciated asset has an economic value equal to the present value of its future stream of income less variable costs. Vessels are also depreciable assets. Does this mean that vessel owners do not deserve to receive quota?

(c) Highgrading

- While highgrading can be a potential problem with ITQs, it important to bear the following points in mind. Highgrading can be very positive in some fisheries, particularly those in which discard mortality rates are very low. For example, in the American lobster fishery, throwing back less valuable small lobsters, or new shell lobsters, in an effort to maximize the value produced from an IFQ would also contribute to the conservation of the lobster stocks. Also highgrading, or discarding, is required by many traditional fishery management measures, in contrast to a possible increased incentive to high-grade that may be created by IFQs.

Minimum size limits require that animals smaller than the minimum size be discarded. In one recent year NMFS estimated that the discards of undersize yellowtail flounder in New England were equal to the landings. Trip limits or possession limits on one species that is caught in combination with other species generally require that the limited species be discarded. TACs on one species in a mixed species fishery generally require that the species for which the TAC has been reached be discarded. Fisheries that prohibit the landing of females, or of egg-bearing females, require that those animals be discarded. Regulations that prohibit the landing or possession of certain species by certain gear types that will inevitably catch those species require discards.

(d) Monitoring and Enforcement

- The problems with monitoring and enforcing ITQs do not get adequate coverage.

(e) Stakeholder Support

- While the support of stakeholders is an important part of the management development process, the NRC Committee may have put too much emphasis on this, especially relative to other management techniques. Broad stakeholder support is not a necessary condition in IFQs as it is not a condition in conventional management approaches. An IFQ process simply needs to have an excellent participatory process for stakeholders. Basically, the NRC Committee's statement gets us back to the danger of essentially requiring fishers hold a referendum before proceeding with an IFQ. We do not hold referenda on any other management alternatives. Congress should not only lift the moratorium on IFQs but also do away with previous language requiring referenda in the Gulf of Mexico.

(f) Economic Efficiency

- The theme throughout the report's support of IFQs is economic efficiencies but the question is economic efficiencies for whom? One of the goals of fishery management is supposed to be increased benefits to the nation B- see National Standards 1 and 8 of the Magnuson-Stevens Act. The report seems to focus only on economic efficiency in terms of the lowest cost per unit effort to catch and process fish, with no consideration given to overall employment, fishing vessel construction and maintenance, and distribution of benefits to fishing communities, to name just a few of the other net benefits to the Nation that accrue from a diversified fishing industry. Further, it should be noted that Congress enacted as part of the same legislation that contained the American Fisheries Act a limit on the size of fishing vessels B one that would have prevented many factory trawlers in operation today from entering the fishery. Clearly Congress does not view "economic efficiency" to equate solely with the most efficient catching and processing methods.

The report should have examined more broadly some of the existing fisheries to see how economic inefficiency actually maximizes benefits to the Nation. For example, the Bristol Bay Salmon Gillnet Fishery has the biggest return of wild salmon in the world that happens in a two week period in a very concentrated area. Currently over 2000 fishing vessels less than 32' long harvest these fish, which could be called very inefficient. Two big factory trawlers could accomplish the same thing and be efficient in the manner envisioned by the report. However, all the fishing crews, tender crews, process workers and plant revenues would be lost, the local tax

base eroded and local business devastated, thereby significantly reducing the benefits to the Nation.

- On the other hand, improving economic efficiency will not necessarily reduce employment in the long run if there is an increase in stock size.

(g) Initial Allocation and Compensation

- The program design and implementation components dealing with transition to IFQs include compensation. The NRC Committee offers no justification as to why compensation needs to be included at the start of a program. There is a very good likelihood that most IFQs would result in initial allocations for everyone being less than their historical level of allocation. To those excluded totally, no compensation is due because there was no right to fish. Envision a Council deciding that data are not good enough so they allocate half the TAC on the basis of historical levels and split the other half equally among those qualifying. Therefore more would get historical share levels. Most people would then be due compensation. Compensation at the start of an IFQ burdens the program and again makes it less competitive to status quo and limited access alternatives.

- More attention needs to be paid to the impact on shareholders when a Council votes to change the allocation between commercial and recreational stakeholders. Once in an IFQ or a shared fishery, under what circumstances should the allocation be changed? A change can seriously affect commercial shareholders' attitudes, compliance, share value, etc. There needs to be a thorough discussion of how a change in allocation should be justified and how compensation of commercial shareholders would be accomplished.

(h) Entry into IFQ Programs

- The recommendation that entry be facilitated but not by increasing the number of shares is not credible. The conclusion must be based on a static fishery or one in an overfished condition. Their reasoning fails to acknowledge a fishery moving from an overfished condition to one where overfishing does not exist. So why not use the increasing commercial portion of TAC to increase the number of shares and shareholders?

(i) Taxes

- With respect to implementing a tax on fish caught under an ITQ program, it is important to bear in mind the difference between those who receive quota for free and those who purchase it before the tax is implemented. There is a vast difference between the ability of a person who received IFQs for free to pay a tax (of three percent or greater) and a fishermen who has purchased shares and is paying interest on a loan.

- It is inconsistent to recommend that Congress authorize fees to recover the full costs of limited access management while not recommending the same for the open access choice. Limited access management will always be at a disadvantage when fishers under open access do not have to pay for full cost recovery.

(j) Windfall Gains and Other Ways of Allocating Quota

- The degree to which one views the allocation of ITQs to existing participants in a fishery as a windfall is somewhat of a subjective value judgement. The windfall that comes at

the point of selling out can be viewed as compensation for exit. Strip too much of that away and one loses the incentive to exit, thus maintaining the overcapitalized and inefficient nature of the fishery, as well as removing the equity provided through the industry funded buyback that the transaction would provide.

What may appear as a windfall to some, may be a long deferred return on investment to the recipient. Fishing is a risky business which should provide a higher rate of return than municipal bonds. Yet because the public through its fisheries management agencies has failed so abysmally to limit access and prevent the race for fish, the investments of many fishers have failed to provide a normal rate of return. The value of those investments has been stripped away by the open access system.

Zero revenue auctions subsequent to allocation as described in the report could serve a legitimate purpose. Auctions as a mechanism for initial allocation would only be justified if a large portion of the proceeds were used to compensate those whose investments were disenfranchised.

- There are differences in professional opinion as to whether or not there actually is a windfall gain with ITQs. See amendment 8 of the Gulf's reef fish Fishery Management Plan for red snapper. Even if one agrees that there are windfall gains, then one needs agreement on how to quantify its size. Equity also is an issue here. If there is windfall with limited access programs, why then would the windfalls associated IFQs be captured but not those associated with license limitation schemes?

The rent extraction recommendation clearly goes beyond the charge of the NRC Committee. Is the NRC Committee proposing rent extraction for IFQ programs established by Councils when the alternatives status quo and other limited access choices have no such provisions? There can be rents earned in these other choices. Also, this recommendation will require more than an effective system of capturing and reallocating. There is the mound of data and analyses needed to calculate rent not to mention that a consensus has to develop among economists. Rent will manifest itself as taxable income that could put fishers in a higher bracket for which the government will collect higher rates on even the base opportunity costs of capital and labor component of taxable income.

It is beyond the NRC Committee's charge to get into specifying use of funds over administrative cost. If this is done, the needs in these areas will drive the level of rent extraction. This would be wrong.

(k) Sunset Provisions for ITQs

- It is incorrect that a sunset provision "...would largely undermine the purpose of an IFQ program." Sunsets should be considered in more general terms. The sunset option should be inclusive of, for example: a) a prearranged point at which a thorough technical evaluation of the program is presented; b) formal public hearings; c) an open season exists on changes not requiring the labor and delay experienced in a plan amendment; d) evaluation of how to handle the increasing commercial portion of a TAC in a recovering fishery; and e) how to handle shifts in demand to recreational usage. Councils should decide on a case by case basis about sunsets.

(l) Flexibility

- Fisheries management is a dynamic ever-changing endeavor. Given the dynamic nature of natural events and the associated fishing activities, it is likely the implementation and management of IFQs will also require considerable flexibility and adjustment to stay abreast of political, social, and economic changes. If IFQs become a standard tool in fisheries management there will be need for a market place where “owners@ can trade or lease IFQ rights, not just in single fisheries, but multiple fisheries. There will likely be a need for some market leveling mechanism to maintain an orderly market and allow those who are awarded a small share to either sell at fair value or purchase enough rights to properly capitalize their fishing operations.

(m) Cooperation with States

- While the recommendation for Councils to inform states when they are considering IFQs and to work toward complimentary management measures makes good sense, it should be remembered that many states will not have legal authority to develop IFQ programs. This should not be used as a reason to prevent Councils from developing IFQs if they so choose. Complimentary management measures do not imply identical management measures.

(n) IFQs and Co-management

- The recommendations should have acknowledged that IFQs are an excellent opportunity for a group of people to move into co-management association with a Council. For example, there must be means by which to resolve imperfections and disagreements without having to use plan amendments. A review board or appeals board of shareholders can serve the Council here. As many of the matters that arise may relate to equity, shareholders may have a better view of valuable additions.

3. Comments on errors of fact or interpretation

- It is a mistake to suggest that government should adopt or impose IFQs on the basis of overcapitalization. Overcapitalization as an economic concept is fine, however there is no mandate or national policy that fisheries management should correct overcapitalization. Capitalization or overcapitalization is not defined in the report nor is the level at which capitalization would be in balance. In the extreme, if an overcapitalization policy was in effect, how would we deal with capitalization of recreational fishing boats? Even if capitalization in the industry was balanced, the decision is still in the hands of the individual, company, or investor involved. There is also a high degree of regulatory overcapitalization occurring in fisheries as a result of management actions that require gear changes or make gear obsolete which must be considered, as well as market and product changes affected by management changes.

- There was a comment that suggested that discard of trawl caught fish suffered 100% mortality. This is not correct. Studies conducted by the IPHC indicated that with careful handling and rapid deck sorting, trawl by-caught halibut can have better than 50% survival.

- The recommendation refers to research as an attributable cost on page 208 but on page 159 it is listed as an avoidable cost.

- The statement that “As a compensation mechanism, the “two-pie” (i.e., harvesting and processing quotas) solution would be equivalent to allocating a part of the harvest quotas to processors (Matulich et al., 1996 and Matulich and Sever, in press) (p.151)” is false. Neither citation suggested the alternative allocations were equivalent. In fact, the second citation rigorously demonstrates they are not equivalent and there is no other peer reviewed, scholarly literature to the contrary.

- The statement that “The Committee heard considerable testimony from processors in the North Pacific region that they would be economically disadvantaged and perhaps bankrupted by losing control over their ability to set prices...” (p. 152) is misleading. The argument was not made that processors would lose control over their ability to set prices. Processors do not and cannot set prices in North Pacific fisheries, such as pollock. They negotiate prices with a monopolistic bargaining association that represents fishers.

4. Comments on errors of omission

- The report on enforcement by Dana Mathews is referenced in the text (p. 95) but is not included in the Appendix, thus limiting any discussion of its substantive points.

- In Chapter 4, Output Controls, Voluntary Cooperatives, Box 4.6, pages 128-129, there are several points that were not mentioned in this section. The Coop members voluntarily assess themselves a fee that has resulted in \$584,000 being raised between June 1997 and August 1998, and which is earmarked for fisheries research. This is a significant commitment to the long-term health of fishery resources that is unprecedented in U.S. fisheries. Coop members voluntarily employ two NMFS fishery observers on each Coop vessel at all times, doubling observer costs by about \$50,000 per year, to increase the reliability of fisheries data and hence the assurance that the long-term health of the resource would be protected. There are no regulations that require even one fishery observer in West coast groundfish fisheries.

With longer seasons and increased revenue due to higher quality products and better product recovery rates, total wages for crew members on Coop vessels have increased, contrary to assertions that jobs would be lost. It's true that coops could result in fewer vessels in the fishery but the remaining vessels fish more days and produce higher value products, resulting in an increase in wages for the crew overall.

- It was overlooked in the document that the red snapper IFQ passed by the Gulf and approved by NMFS explicitly dealt with the hired situation. Special provisions were made to include **historical captains** in the initial allocation.

- The NRC Committee report misrepresents the open access externality by limiting its scope to overcapitalization in the “fishing” sector when, by its own definition of a fishery, the externality extends until the highly perishable raw fish is stabilized into a finished or intermediate product form. Simply put, a race to fish begets a race to process because fish are perishable. Choice of the policy instrument (the type and initial allocation of quotas) to internalize the externality must reflect the externality’s scope if complete welfare effects are to be addressed, i.e., if policy

makers are to be advised of the full array of beneficial and harmful effects from switching to ITQ management.

5. *Comments on the description of IFQ programs*

- The NRC Report and the broader discussion of IFQs and alternative management measures would benefit from a table that makes it easier to compare the biological, economic, and social attributes of the alternatives.
- The complete document, with appendices, should satisfy any fisheries policy analyst and serve as excellent source material for Council staff in preparing future analyses of fisheries rationalization programs. The background material in Chapter 2 comparing fisheries with other common pool resources provided a useful frame of reference which should be useful in educating non-fishery policy analysts.
- The report could benefit from a more incisive examination of the many innovations being implemented at state levels which are tailored to specific fisheries.

***Appendix A:
Magnuson-Stevens Fisheries Conservation
and Management Act, 104-297 Section 108 (f)***

The Magnuson-Stevens Fisheries Conservation and Management Act states that the NRC report "... shall address all aspects of such quotas, including an analysis of --

- (A) the effects of limiting or prohibiting the transferability of such quotas;
- (B) mechanisms to prevent foreign control of the harvest of United States fisheries under individual fishing quota programs, including mechanisms to prohibit persons who are not eligible to be deemed a citizen of the United States for the purpose of operating a vessel in the coastwise trade under section 2(a) and section 2(c) of the Shipping Act, 1916 (46 U.S.C. 802(a) and (c)) from holding individual fishing quotas;
- (C) the impact of limiting the duration of individual fishing quota programs;
- (D) the impact of authorizing Federal permits to process a quantity of fish that correspond to individual fishing quotas, and of the value created for recipients of any such permits, including a comparison of such value to the value of the corresponding individual fishing quotas;
- (E) mechanisms to provide for diversity and to minimize adverse social and economic impacts on fishing communities, other fisheries affected by the displacement of vessels, and any impacts associated with the shifting of capital value from fishing vessels to individual fishing quotas, as well as the use of capital construction funds to purchase individual fishing quotas;
- (F) mechanisms to provide for effective monitoring and enforcement, including the inspection of fish harvested and incentives to reduce bycatch, and in particular economic discards;
- (G) threshold criteria for determining whether a fishery may be considered for individual fishing quota management, including criteria related to the geographical range, population dynamics and condition of a fish stock, the socioeconomic characteristics of a fishery (including participants' involvement in multiple fisheries in the region) and participation by commercial, charter, and recreational fishing sectors in the fishery;
- (H) mechanisms to ensure that vessel owners, vessel masters, crew members, and United States fish processors are treated fairly and equitably in initial allocations, to require persons holding individual fishing quotas to be on board the vessel using such quotas, and to facilitate new entry under individual fishing quota programs;
- (I) potential social and economic costs and benefits to the nation, individual fishing quota recipients, and any recipients of Federal permits described in subparagraph (D) under individual fishing quota programs, including from capital gains revenue, the allocation of such quotas or permits through Federal auctions, annual fees and transfer fees at various levels, or other measures;
- (J) the value created for recipients of individual fishing quotas, including a comparison of such value to the value of the fish harvested under such quotas and to the value of permits created by other types of limited access systems, and the effects of creating such value on fishery management and conservation; and
- (K) such other matters as the National Academy of Sciences deems appropriate."

Appendix B:
NMFS IFQ Advisory Panel Members

East Coast Panel:

Lee G. Anderson (Chair), University of Delaware, Newark, DE

Richard B. Allen, Rhode Island lobster fisherman, Wakefield, RI

Ted Ames, F/V Robin A., Stonington, ME

Harriet A. Didriksen, Frontier Fishing, Corp., Mattapoisett, MA

Walter M. Gordon, Mid-Atlantic Foods, Inc., Pocomoke City, MD

Thomas R. Hill, Atlantic & Pacific Marine Consultants, Inc., Gloucester, MA

D. Douglas Hopkins, Environmental Defense Fund, New York, NY

Pete Jensen, Maryland Department of Natural Resources, Annapolis, MD

Jim Kendall, New Bedford Seafood Coalition, New Bedford, MA

Miles Mackaness, F/V Lien Machine, Merritt Island, FL

Howard Nickerson, Offshore Mariner's Association, Inc., New Bedford, MA

Kenneth J. Roberts, Louisiana State University Agricultural Center, Baton Rouge, LA

David Wallace, Wallace and Associates, Salisbury, MD

Roy O. Williams, Florida Marine Fisheries Commission, Tallahassee, FL

R. F. Zales, Bob Zales Charters, Panama City, FL

West Coast Panel:

Beth Stewart (Chair), Aleutians East Borough, Juneau, AK

Linda Behnken, Alaska Longline Fishermen's Association, Sitka, AK

Francis Christy, IMARIBA, Washington, DC

David Fraser, F/V Muir Milach, Port Townsend, WA

Rodney M. Fujita, Environmental Defense Fund, Oakland, CA

Ralph G. Hoard, Icicle Seafoods, Inc., Seattle, WA

L. John Iani, UniSea, Inc., Redmond, WA

Jan Jacobs, American Seafoods Company, Seattle, WA

Linda Kozak, Linda Kozak and Associates, Kodiak, AK

Mark S. Lundsten, Queen Anne Fisheries, Inc., Seattle, WA

Scott C. Matulich, Washington State University, Pullman, WA

Tom Morrison, Morrison Fisheries, Inc., Warrenton, Oregon

Ben Muse, State of Alaska Commercial Fisheries Entry Commission, Juneau, AK

C. Jim Ponts, F/V Blackhawk, Fort Bragg, CA

Paul K. Seaton, Alaska Marine Conservation Council, Homer, AK